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WHAT IS CLAIMED IS:

1. An image pickup apparatus comprising:

an image pickup device having a light-receiving section to receive light from an object to generate an analog video signal, and a light-blocking section to block the light to generate reference signals;

an analog-to-digital converter to convert the analog video signal into a digital video signal;

a processor to accumulate the reference signals a predetermined number of times from a predetermined accumulation starting point on scanning lines forming an image of the object for a specific period and average the accumulated signal to generate an average signal; and

an adjuster to adjust a reference level of the digital video signal based on the average signal so that the difference between the digital video signal and the average signal becomes zero.

2. The image pickup apparatus according to claim 1 further comprising a controller to decide the number of times for accumulation as 2^n that is smaller than a specific number "m" of the scanning lines for forming the image of the object, "n" and "m" being positive integers, and to decide the accumulation starting point as $(m - 2^n)/2$.

3. A method of controlling an image apparatus having a light-receiving section and a light-blocking section comprising the steps of:

receiving light from an object by the light-receiving section to generate an analog video signal;

blocking the light by the light-blocking section to generate reference signals;

converting the analog video signal into a digital video signal;

accumulating the reference signals a predetermined number of times from a predetermined accumulation starting point on scanning lines forming an image of the object for a specific

period;

averaging the accumulated signal to generate an average signal; and

adjusting a reference level of the digital video signal based on the average signal so that the difference between the digital video signal and the average signal becomes zero.

4. The controlling method according to claim 3 further comprising the steps of:

deciding the number of times for accumulation as 2^n that is smaller than a specific number "m" of the scanning lines for forming the image of the object, "n" and "m" being positive integers; and

deciding the accumulation starting point as $(m - 2^n)/2$.

5. A method of controlling an image apparatus having a light-receiving section and a light-blocking section comprising the steps of:

receiving light from an object by the light-receiving section to generate a plurality of analog video signals for a first field period;

blocking the light by the light-blocking section to generate reference signals for each analog video signal;

converting the analog video signals into digital video signals;

accumulating the reference signals for each digital video signal to generate a first accumulated signal;

averaging the first accumulated signal to generate a first average signal;

accumulating the first average signal for all the video signals for a second field that follows the first field period to generate a second accumulated signal;

averaging the second accumulated signal to generate a second average signal; and

adjusting a reference level of each digital video signal based on the second average signal so that the difference between the digital video signals and the second average signal becomes

zero.